

In the Claims:

Claims 1-13 were previously cancelled.

14. (Currently amended) A platelet gel dispenser, comprising:

a first vessel with a chamber and an opening providing an inlet and an outlet to the chamber;

a second vessel with a chamber and an opening providing an inlet and an outlet to the chamber;

means for drawing a liquid platelet rich plasma into the first and second vessels chambers and forcing the liquid thrombin out of the chambers chamber of the first vessel and the platelet rich plasma out of the chamber of the second vessels vessel, the dispensed thrombin and platelet rich plasma combining to form a platelet gel; and

a restoration agent and an activation agent positioned within the chamber of the first vessel in amounts sufficient to allow formation of a clot upon receiving the platelet rich plasma within the chamber of the first vessel, wherein the agents are positioned within the chamber prior to receiving the platelet rich plasma, liquid and wherein the restoration agent at least partially reverses effects of an anticoagulation agent in the received liquid platelet rich plasma and wherein the activation agent activates the platelet rich plasma to form the clot.

15. (Currently amended) The platelet gel dispenser of claim 14, including a filter positioned outside the chamber of the first vessel in fluid communication with the opening of the first vessel with a pore size selected to filter thrombin from the clot debris.

16. (Previously presented) The platelet gel dispenser of claim 14, wherein the drawing and forcing means includes a first liquid line connected to the opening of the first vessel and a second liquid line connected to the opening of the second vessel and valving means for selecting concurrent flow to the first and second liquid lines or non-concurrent flow to the first and second liquid lines.

17. (Previously presented) The platelet gel dispenser of claim 16, wherein the drawing and forcing means includes a first plunger positioned in the chamber of the first vessel and a second plunger positioned in the chamber of the second vessel.

18. (Previously Cancelled)

19. (Currently amended) The platelet gel dispenser of claim 14, wherein said the restoration agent is a calcium salt.

20. (Previously presented) The platelet gel dispenser of claim 19, wherein said calcium salt is calcium chloride, calcium gluconate, or calcium carbonate.

21. (Currently amended) The platelet gel dispenser of claim 14, wherein said the activation agent is glass wool, silica aluminum, ~~diatamaceous~~ diatomaceous earth, kaolin, plastic, siliconized glass or a chemical activator.

22. (Currently amended): A platelet gel dispenser adapted for preparing and dispensing an autologous platelet gel composition, comprising:

a first vessel for storing a first volume of liquid platelet rich plasma;

a second vessel for storing a second volume of liquid platelet rich plasma;

a lumen assembly connected to an opening in the first vessel and to an opening in the second vessel, whereby a liquid platelet rich plasma can be provided to the first and second vessels concurrently or selectively;

a sufficient amount of a restoration agent and an activation agent contained within the first vessel to allow formation of a clot upon receiving the platelet rich plasma within the first vessel; and

a filter element positioned within the first vessel, wherein the filter element is configured for filtering thrombin solids from the clot liquid in the first vessel and allowing the liquid to pass through and comprises an activating agent for expressing thrombin in the liquid in the first vessel.

23. (Cancelled)

24. (Currently amended) The dispenser of ~~claim~~ claim [[23]] 22, wherein said the restoration agent is a calcium salt.

25. (Currently amended) The dispenser of claim 22, wherein the filter element comprises glass wool which also serves as the activation agent.

26. (Previously presented) The dispenser of claim 22, wherein the first volume is selected from the range of about one half the second volume to about equal to the second volume.

27. (Currently amended) The dispenser of claim 22, ~~further including a filter positioned between the lumen and the opening to the first vessel, wherein the filter having has a pore size with a micron size large enough selected to pass filter the thrombin while filtering from the clot debris and activator solids present in the liquid from the first vessel.~~

28. (Currently amended) The dispenser of claim 27, further including a tube connected to the openings of the first and second vessels via the lumen for combining the liquids ~~discharged thrombin from the first vessel and the platelet rich plasma from the second vessels vessel~~ and including a valve for controlling flow from the lumen to the combining tube.

29. (Cancelled)

Please add the following new claims:

30. (New) The platelet gel dispenser of claim 14, wherein the restoration agent is heparinase.

30. (New) The platelet gel dispenser of claim 14, further including a modifying agent positioned within the chamber of the first vessel in an amount sufficient to increase the formation of thrombin in the chamber of the first vessel.

31. (New) The platelet gel dispenser of claim 30, wherein the modifying agent is epsilon aminocaproic acid.

32. (New) The platelet gel dispenser of claim 30, wherein the modifying agent is a thromboplastic material.

33. (New) The platelet gel dispenser of claim 30, wherein the modifying agent is an exogenous lipoprotein.

34. (New) The platelet gel dispenser of claim 14, further including cells positioned within the chamber of the second vessel.

35. (New) The platelet gel dispenser of claim 34, wherein the cells are bone cells.

36. (New) The platelet gel dispenser of claim 14, further including a biological agent positioned within the chamber of the second vessel.

37. (New) The platelet gel dispenser of claim 36, wherein the biological agent is selected from the group consisting of:  
analgesic compounds, antibacterial compounds, bactericidal compounds, bacteriostatic compounds, antibiotics, antifungal compounds, anti-inflammatories, antiparasitic compounds, antiviral compounds, anticancer compounds, enzymes, enzyme inhibitors, glycoproteins, growth factors, hormones, steroids, glucocorticosteroids, immunomodulators, immunoglobulins, minerals, neuroleptics, proteins, peptides, lipoproteins, tumoricidal compounds, tumorstatic compounds, toxins, vitamins and drugs.

38. (New) The platelet gel dispenser of claim 14, wherein the chamber of the second vessel includes a material selected from the group consisting of:  
gelatin, collagen, degradable polymers, hyaluronic acid, carbohydrates and starches.

39. (New) The dispenser of claim 24, wherein the calcium salt is calcium chloride, calcium gluconate, or calcium carbonate.

40. (New) The dispenser of claim 22, wherein the restoration agent is heparinase.

41. (New) The dispenser of claim 22, further including a modifying agent positioned within the first vessel in an amount sufficient to increase the formation of thrombin.

42. (New) The dispenser of claim 41, wherein the modifying agent is epsilon aminocaproic acid.

43. (New) The dispenser of claim 41, wherein the modifying agent is a thromboplastic material.

44. (New) The dispenser of claim 41, wherein the modifying agent is an exogenous lipoprotein.

45. (New) The dispenser of claim 22, further including cells contained within the second vessel.

46. (New) The dispenser of claim 45, wherein the cells are bone cells.

47. (New) The dispenser of claim 22, further including a biological agent contained within the second vessel.

48. (New) The dispenser of claim 47, wherein the biological agent is selected from the group consisting of:

analgesic compounds, antibacterial compounds, bactericidal compounds, bacteriostatic compounds, antibiotics, antifungal compounds, anti-inflammatories, antiparasitic compounds, antiviral compounds, anticancer compounds, enzymes, enzyme inhibitors, glycoproteins, growth factors, hormones, steroids, glucocorticosteroids, immunomodulators, immunoglobulins, minerals, neuroleptics, proteins, peptides, lipoproteins, tumoricidal compounds, tumorstatic compounds, toxins, vitamins and drugs.

49. (New) The dispenser of claim 22, wherein the second vessel includes a material selected from the group consisting of:

gelatin, collagen, degradable polymers, hyaluronic acid, carbohydrates and starches.

50. (New) A dispenser adapted for preparing and dispensing a platelet gel composition, comprising:

a first vessel for storing a first volume of platelet plasma;  
a second vessel for storing a second volume of platelet plasma;  
a lumen assembly connected to an opening in the first vessel and to an opening in the second vessel, whereby the platelet plasma is provided to the first and second vessels concurrently or selectively;  
a restoration agent and an activation agent positioned within the first vessel in an amount sufficient to allow formation of a clot within the first vessel;  
a filter for separating thrombin from the clot; and  
a mixing assembly connected to the openings of the first and second vessels via the lumen assembly for combining the thrombin from the first vessel and the platelet plasma from the second vessel, the mixing assembly comprising a mixing chamber and a valve for controlling flow from the lumen assembly to the mixing chamber.

51. (New) The dispenser of claim 50, wherein the restoration agent is a calcium salt.
52. (New) The dispenser of claim 51, wherein the calcium salt is calcium chloride, calcium gluconate, or calcium carbonate.
53. (New) The dispenser of claim 50, wherein the restoration agent is heparinase.
53. (New) The dispenser of claim 50, wherein the filter is positioned within the first vessel.
54. (New) The dispenser of claim 50, wherein the filter element comprises glass wool which also serves as the activation agent.
55. (New) The dispenser of claim 50, wherein the filter has a pore size selected to filter the thrombin from the clot.
56. (New) The dispenser of claim 50, wherein the first volume is selected from the range of about one half the second volume to about equal to the second volume.
57. (New) The dispenser of claim 50, further including a modifying agent positioned within the first vessel in an amount sufficient to increase the formation of thrombin in the first vessel.
58. (New) The dispenser of claim 57, wherein the modifying agent is epsilon aminocaproic acid.
59. (New) The dispenser of claim 57, wherein the modifying agent is a thromboplastic material.
60. (New) The dispenser of claim 57, wherein the modifying agent is an exogenous lipoprotein.
61. (New) The dispenser of claim 50, further including cells positioned within the second vessel.

62. (New) The dispenser of claim 61, wherein the cells are bone cells.

63. (New) The dispenser of claim 50, further including a biological agent positioned within the second vessel.

64. (New) The dispenser of claim 63, wherein the biological agent is selected from the group consisting of:  
analgesic compounds, antibacterial compounds, bactericidal compounds, bacteriostatic compounds, antibiotics, antifungal compounds, anti-inflammatories, antiparasitic compounds, antiviral compounds, anticancer compounds, enzymes, enzyme inhibitors, glycoproteins, growth factors, hormones, steroids, glucocorticosteroids, immunomodulators, immunoglobulins, minerals, neuroleptics, proteins, peptides, lipoproteins, tumorcidal compounds, tumorstatic compounds, toxins, vitamins and drugs.

65. (New) The dispenser of claim 50, wherein the second vessel includes a material selected from the group consisting of:  
gelatin, collagen, degradable polymers, hyaluronic acid, carbohydrates and starches.

66. (New) The dispenser of claim 50, wherein the platelet plasma is a platelet rich plasma.

67. (New) The dispenser of claim 50, wherein the platelet plasma is a platelet poor plasma.

68. (New) The dispenser of claim 50, wherein the first volume of platelet plasma is a first volume of platelet rich plasma and the second volume of platelet plasma is a second volume of platelet poor plasma.

69. (New) The dispenser of claim 50, wherein the first volume of platelet plasma is a first volume of platelet poor plasma and the second volume of platelet plasma is a second volume of platelet rich plasma.

70. (New) A system for preparing and dispensing a platelet gel composition, comprising:  
a centrifuge apparatus for separating a platelet plasma from a sample of anticoagulated whole blood;  
a dispenser comprising a first vessel for storing a first volume of the platelet plasma and a second vessel for storing a second volume of the platelet plasma;

a lumen assembly connectable to the centrifuge apparatus and to openings in the first and second vessels for providing the platelet plasma from the centrifuge apparatus to the first and second vessels concurrently or selectively;

means for drawing the platelet plasma from the centrifuge apparatus through the lumen assembly and into the first and second vessels;

a restoration agent and an activation agent positioned within the first vessel in amounts sufficient to allow formation of a clot upon receiving the platelet plasma within the first vessel; and

a filter positioned within the first vessel for separating thrombin from the clot.

71. (New) The system of claim 70, wherein the drawing means is a suction means.

72. (New) The system of claim 70, wherein the drawing means includes a first plunger positioned in the first vessel and a second plunger positioned in the second vessel.

73. (New) The system of claim 70, wherein the restoration agent is a calcium salt.

74. (New) The system of claim 73, wherein the calcium salt is calcium chloride, calcium gluconate, or calcium carbonate.

75. (New) The system of claim 70, wherein the restoration agent is heparinase.

76. (New) The system of claim 70, wherein the filter element comprises glass wool which also serves as the activation agent.

77. (New) The system of claim 70, wherein the filter has a pore size selected to filter the thrombin from the clot.

78. (New) The system of claim 70, wherein the first volume is selected from the range of about one half the second volume to about equal to the second volume.

79. (New) The system of claim 70, further including a modifying agent positioned within the first vessel in an amount sufficient to increase the formation of thrombin in the first vessel.

80. (New) The system of claim 79, wherein the modifying agent is epsilon aminocaproic acid.

81. (New) The system of claim 79, wherein the modifying agent is a thromboplastic material.

82. (New) The system of claim 79, wherein the modifying agent is an exogenous lipoprotein.

83. (New) The system of claim 70, further including cells positioned within the second vessel.

84. (New) The system of claim 83, wherein the cells are bone cells.

85. (New) The system of claim 70, further including a biological agent positioned within the second vessel.

86. (New) The system of claim 85, wherein the biological agent is selected from the group consisting of:  
analgesic compounds, antibacterial compounds, bactericidal compounds, bacteriostatic compounds, antibiotics, antifungal compounds, anti-inflammatories, antiparasitic compounds, antiviral compounds, anticancer compounds, enzymes, enzyme inhibitors, glycoproteins, growth factors, hormones, steroids, glucocorticosteroids, immunomodulators, immunoglobulins, minerals, neuroleptics, proteins, peptides, lipoproteins, tumoricidal compounds, tumorstatic compounds, toxins, vitamins and drugs.

87. (New) The system of claim 70, wherein the second vessel includes a material selected from the group consisting of:  
gelatin, collagen, degradable polymers, hyaluronic acid, carbohydrates and starches.

88. (New) The system of claim 70, wherein the platelet plasma is a platelet rich plasma.

89. (New) The system of claim 70, wherein the platelet plasma is a platelet poor plasma.

90. (New) The system of claim 70, wherein the first volume of platelet plasma is a first volume of platelet rich plasma and the second volume of platelet plasma is a second volume of platelet poor plasma.

91. (New) The system of claim 70, wherein the first volume of platelet plasma is a first volume of platelet poor plasma and the second volume of platelet plasma is a second volume of platelet rich plasma.